

AUSTRALIAN PATENT OFFICE

SEARCH REPORT

| | | |
|---|--|---|
| Applicant's or agent's file reference MH/EK(FM)/6002111SGC | | |
| Application No. SG 200302787-7 | Application Filing Date (<i>day/month/year</i>) 13 May 2003 | (Earliest) Priority Date (<i>day/month/year</i>) 27 March 2003 |
| Applicant MICROSOFT CORPORATION | | |

This search report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (See Box I)
2. ☐ Unity of invention is lacking (See Box II)
3. ☐ The application contains disclosure of a nucleotide and/or amino acid sequence listing and the search was carried out on the basis of the sequence listing
 - ☐ filed with the application
 - ☐ furnished by the applicant separately from the application,
 - ☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in application as filed
4. With regard to the title, ☒ the text is approved as submitted by the applicant.
 - ☐ the text has been established by this Office to read as follows:
5. With regard to the abstract, ☒ the text is approved as submitted by the applicant
 - ☐ the text has been established by this Office as it appears in Box III
6. The figure of the drawings to be published with the abstract is Figure No. 2
 - ☒ as suggested by the applicant.
 - ☐ because the applicant failed to suggest a figure
 - ☐ because this figure better characterises the invention
 - ☐ None of the figures

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| A. CLASSIFICATION OF SUBJECT MATTER | | |
|---|---|---|
| According to International Patent Classification (IPC) Int. Cl. ⁷ G06T 11/00, G06F 9/44 | | |
| B. FIELDS SEARCHED | | |
| Minimum documentation searched (classification system followed by classification symbols) | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched | | |
| Electronic data base consulted during the search (name of data base and, where practicable, search terms used) DWPI, PCT, USPTO, IEEE, internet (scene graph, API, etc.) | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X, O | <i>OpenSG Starter Guide 1.2.0</i> , 19 March 2003 < http://www.opensg.org/downloads/OpenSG-1.2.0-DevStarter.pdf > | 1-78 |
| X, O | <i>RM Scene Graph Technical White Paper</i> , December 1999 < http://www.r3vis.com/Downloads/rmwhite-1999.pdf > | 1-78 |
| X | J. Rohlf et al, <i>IRIS Performer: A High Performance Multiprocessing Toolkit for Real-Time 3D Graphics</i> Computer Graphics (Proc. ACM Siggraph 94), pp 381-94, August 1994 < http://www.cs.virginia.edu/~gfx/Courses/2002/BigData/papers/Interfaces and Software Systems/IRIS Performer.pdf > | 1-78 |
| <input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex | | |
| <p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p> | | |
| Date of submission of the request to the Australian Patent Office 25 October 2004 | Date of completion of the search report 12 January 2005 | Date of mailing of the search report 21 JAN 2005 |
| Name and mailing address AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. 61 2 62853929 | | Authorised officer MATTHEW HOLLINGWORTH |

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| C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|-----------------------|
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | H. A. Sowizral et al, <i>The Java 3D API and Virtual Reality</i> IEEE Computer Graphics and Applications, Vol. 19, No. 5, pp. 53-8, 1999 | 1-78 |
| X | WO 2001/022370 A1 (SUN MICROSYSTEMS, INC.), 29 March 2001 the whole document | 1-78 |
| A | US 2003/0132937 A1 (SCHNEIDER et al), 17 July 2003 the whole document | 1-78 |

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PATENT FAMILY MEMBERS

Application No.

SG 200302787-7

| Patent Document Cited in Search Report | | | | Patent Family Member | | | |
|---|------------|----|------------|----------------------|------------|----|------------|
| WO | 0122370 | AU | 78315/00 | EP | 1224622 | US | 6570564 |
| | | US | 2001030647 | US | 2002060678 | US | 2002063704 |
| | | US | 2002063713 | US | 2002089508 | | |
| US | 2003132937 | EP | 1304655 | JP | 2003162733 | | |
| Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001. | | | | | | | |
| END OF ANNEX | | | | | | | |

AUSTRALIAN PATENT OFFICE

WRITTEN OPINION

| | | |
|---|---|---|
| Applicant's or agent's file reference MH/EK(FM)/6002111SGC | | Date of mailing <i>day/month/year</i> 21 JAN 2005 |
| REPLY DUE within FIVE MONTHS of the date of the Registrar's letter enclosing the written opinion | | |
| Application No. SG 200302787-7 | Application Filing Date (<i>day/month/year</i>) 13 May 2003 | Priority Date (<i>day/month/year</i>) 27 March 2003 |
| International Patent Classification (IPC) (as indicated in the search report) Int. Cl. ⁷ G06T 11/00, G06F 9/44 | | |
| Applicant MICROSOFT CORPORATION | | |

1. This First written opinion consists of a total of 4 sheets.
2. This opinion contains indications relating to the following items:

| | |
|-----|---|
| I | <input checked="" type="checkbox"/> Basis of the opinion |
| II | <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| III | <input type="checkbox"/> Lack of unity of invention |
| IV | <input checked="" type="checkbox"/> Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| V | <input type="checkbox"/> Certain documents cited |
| VI | <input type="checkbox"/> Certain defects in the application |
| VII | <input checked="" type="checkbox"/> Certain observations on the application |
3. This opinion is based upon the assumption that the priority claim is valid.
4. The search report used was issued by the Australian Patent Office, and the date of completion is: **12 January 2005**
5. If no reply is filed, the examination report will be established on the basis of this opinion.
6. The date by which the examination report will be established is: **27 June 2007**

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| Name and mailing address AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pet@pausa.gov.au Facsimile no. 61 2 62853929 | Authorized Officer MATTHEW HOLLINGWORTH |
|--|---|

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I. Basis of the opinion

1. This opinion has been drawn on the basis of:

- ☒ the application as originally filed.
- ☐ the description, pages , as originally filed,
pages , filed with the request,
pages , received on with the letter of
- ☐ the claims, pages , as originally filed,
pages , filed with the request,
pages , received on with the letter of
- ☐ the drawings, sheets/fig. , as originally filed,
sheets/fig. , filed with the request,
sheets/fig. , received on with the letters of
- ☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
pages , received on with the letter of

2. The amendments have resulted in the cancellation of: pages:
sheets of drawings/figures No :

3 ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box.

4. Additional observations, if necessary:

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IV. Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|---------------------------|-----|
| Novelty (N) | Claims 2-45, 47-69, 71-78 | YES |
| | Claims 1, 46, 70 | NO |
| Inventive step (IS) | Claims | YES |
| | Claims 1-78 | NO |
| Industrial applicability (IA) | Claims 1-78 | YES |
| | Claims | NO |

2. Citations and explanations

- D1: *OpenSG Starter Guide 1.2.0*, 19 March 2003
- D2: *RM Scene Graph Technical White Paper*, December 1999
- D3: J. Rohlf et al, *IRIS Performer: A High Performance Multiprocessing Toolkit for Real-Time 3D Graphics*, August 1994
- D4: H. A. Sowizral et al, *The Java 3D API and Virtual Reality*, 1999
- D5: WO 2001/022370 A1 (SUN MICROSYSTEMS, INC.), 29 March 2001

NOVELTY (N) claims 1, 46, 70

Claims 1, 46 and 70, at least: These claims lack novelty when compared to each of documents D1 and D2, taken individually.

INVENTIVE STEP (IS) claims 1-78

Claims 1-78: Prima facie, the features of these claims lack inventive step in light of any of the listed citations.

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VII. Certain observations on the application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

- ☒ The claimed invention is patentable according to Section 13(2); or
- ☐ The claimed invention is unpatentable according to Section 13(2) because: